In the abstract:

The method is used in a computer and includes the steps of providing a logical theory ~~(12, 30)~~ that has clauses. A rule ~~(14)~~ is generated that is a resolvent of clauses in the logical theory. An example ~~(16)~~ is retrieved. A proof tree ~~(18, 40)~~ is generated from the example ~~(16)~~ using the logical theory ~~(12, 30)~~. The proof tree ~~(18, 40)~~ is transformed into a database ~~(20, 42)~~ of a coverage check apparatus ~~(28)~~. The rule ~~(14)~~ is converted into a partial proof tree ~~(60)~~ that has nodes ~~(62, 54, 66)~~. The partial proof tree is transformed into a database query ~~(22)~~ of the coverage check apparatus ~~(28)~~. The query ~~(22, 72)~~ is executed to identify tuples in the database ~~(20, 42)~~ that correspond to the nodes of the partial proof tree.